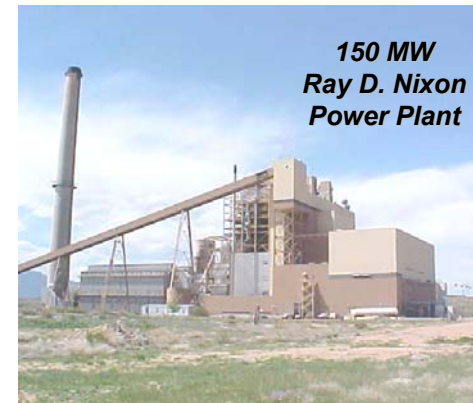
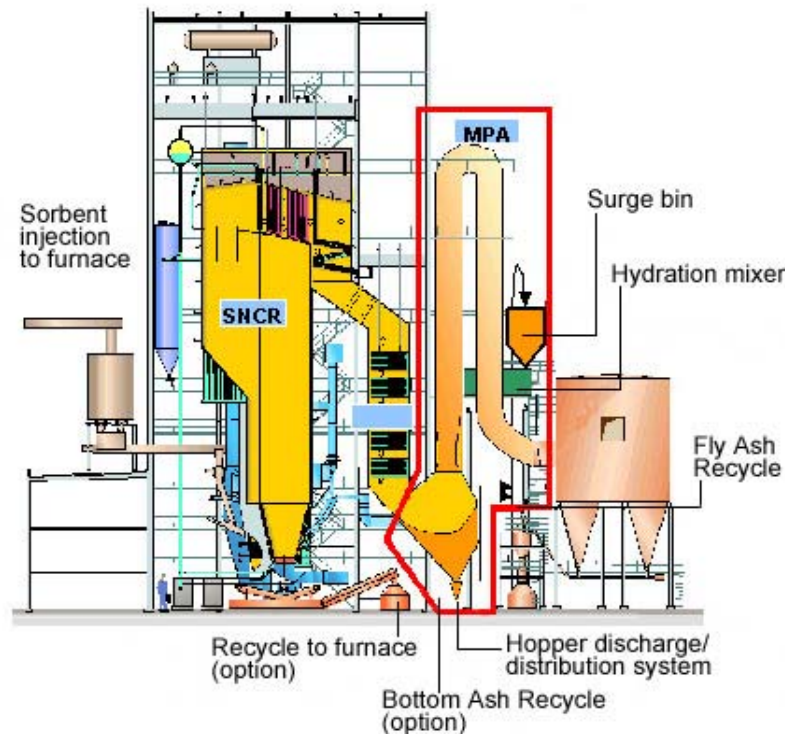


Colorado Springs Utilities

- One of cleanest U.S. coal-fired power plants for SO_x, NO_x and mercury control.
- Helps achieve compliance with upcoming regulations, such as Clear Skies Initiative.
- Uses variety of fuels: bituminous, subbituminous, coal wastes, and wood wastes.
- Total Project funding: \$301.5 million (DOE share: \$30 million).



A CCPI Round 1 Project



Background

- **Colorado Springs Utilities (CSU) and Foster Wheeler are teaming to demonstrate an 150 MW commercial-scale, advanced, low-cost, emission control system.**
- **Location: the Ray D. Nixon Power Plant south of Colorado Springs, CO.**
- **Fully integrated emission controls for SO_x, NO_x, mercury and other trace metals will be combined with CFB combustion.**
- **Project's goal is to demonstrate all of these systems in a single unit at a commercial-scale.**



Technology Uniqueness

- **NOx control system features an advanced staged-combustion system coupled with SNCR, achieving emissions reductions comparable to higher-cost SCR controls.**
- **SOx control design features a three-stage approach to achieve highest capture with lowest limestone consumption (half that of conventional systems).**
- **A low-cost, integrated, trace metal control system can remove up to 90% of Hg, Pb, and other metals and virtually all acid gases.**



– **Technology Uniqueness**

- **Solids separator system, integrated into furnace structure, improves reliability and lowers cost and:**

**All pollution control
systems are integrated
into a single
Commercial-scale Unit**

- Allows reduced combustor size
 - Eliminates hot expansion joints
 - Improves operational performance
 - Reduces maintenance costs
- **A dry cooling tower is used to minimize water use**



– **Schedule**

- **NEPA Process – Completing Environmental Impact Statement**
 - April 10, 2003 to June 6, 2005
- **Design**
 - September 15, 2003 to May 1, 2006
- **Construction**
 - June 6, 2005 to March 2008
- **Operations – Proving the Technology**
 - March 2008 to July 2009



– Potential Benefits

- **This project will demonstrate a low-cost emission control system for CFBs predicted to achieve:**
 - Low level NO_x emissions (0.04 lb/Million Btu with PRB coal)
 - Very high sulfur control (96-98% removal)
 - Up to 90% emissions control of Hg and other trace metals
- **This demonstration will use a variety of fuels to make electricity including:**
 - Bituminous and subbituminous coals
 - Steel industry coal waste, an environmental legacy
 - Wood waste removed from forests for wildfire management

